

SEMICONDUCTOR DEVICE, METHOD OF FABRICATING THE SAME, STACK-TYPE
SEMICONDUCTOR DEVICE, CIRCUIT BOARD AND ELECTRONIC INSTRUMENT

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4/21/06
5 This is a divisional of Application No. 09/870,710 filed
June 1, 2001, ^{U.S. Patent 6,720,661} and is hereby incorporated by reference in its
entirety.

Japanese Patent Application No. 2000-166104 filed on June
2, 2000, Japanese Patent Application No. 2000-338737 filed on
November 7, 2000 and Japanese Patent Application No. 2001-125581
10 filed on April 24, 2001 are hereby incorporated by reference
in their entirety.

TECHNICAL FIELD

The present invention relates to a semiconductor device,
a method of fabricating the same, a stack-type semiconductor
15 device, a circuit board and an electronic instrument.

BACKGROUND

Recently, a semiconductor device having a plurality of
semiconductor chips stacked thereon has been developed. Many
of them have been intended for electrical connection where
20 electrodes of the semiconductor chips are bonded with wires or
leads. However, the provision of the wires has imposed
limitations on downsizing.

Additionally, it has been developed that a thorough hole
is formed in the semiconductor chip and molten solder is filled
25 in the through hole for electrical connection. However, when
the solder is filled in a narrow through hole, a void is generated
and thus the reliability in electrical connection is hard to